CLAIMS

A method of preparing an animal feed component comprising:
grinding a quantity of a pulse crop product into a powder;
mixing a quantity of intact oilseeds with the powder, thereby forming a

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subjecting the mixture to a temperature between about 230F to about 350F and a pressure of between about 200 psi to about 400 psi, thereby gelatinizing the mixture;

extruding the mixture; and

forming the mixture into feed components.

- 2. The method according to claim 1 wherein the pulse crop product is selected from the group consisting of peas, lentils, chick peas, fababeans, white beans and mixtures thereof.
- 3. The method according to claim 1 wherein the oilseeds are selected from the group consisting of flax, sunflower, safflower, rapeseed, canola, soybean and combinations thereof.
 - 4. The method of claim 1 wherein the pulse crop product is ground to a consistency such that at least half of the pulse crop product has a diameter of 5 microns or less.
- 20 5. The method of claim 1 wherein the temperature is from between about 255F to about 275F.
 - 6. The method of claim 1 wherein the temperature is from between about 265F to about 268F.
- 7. The method of claim 1 wherein the temperature is from between 25 about 300F to about 325F.

- 8. The method of claim 1 wherein the temperature is from between about 325F to about 335F.
- 9. A method of increasing the amount of omega-3 fatty acids or CLA or DHA in an edible animal product comprising:

feeding an animal a standard feed ration wherein at least 1-40% of the feed ration is replaced by a feed prepared by

grinding a quantity of a pulse product into a powder;

mixing a quantity of intact oilseeds with the powder, thereby forming a mixture:

subjecting the mixture to a temperature between about 230F to about 350F and a pressure of between about 200 psi to about 400 psi, thereby gelatinizing the mixture;

extruding the mixture; and

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forming the mixture into feed components; and

harvesting the edible animal product from the animal, characterized in that the edible animal product has at least 1.5-5 fold increased omega3 levels or at least 1.5-2 fold increased CLA levels compared to an edible animal product harvested from a similar animal fed a standard feed ration.

- 10. The method according to claim 9 wherein the pulse crop product is selected from the group consisting of peas, lentils, chick peas, fababeans, white beans and mixtures thereof.
 - 11. The method according to claim 9 wherein the oilseeds are selected from the group consisting of flax, sunflower, safflower, rapeseed, canola, soybean and combinations thereof.
- 25 12. The method of claim 9 wherein the pulse crop product is ground to a

consistency such that at least half of the pulse crop product has a diameter of 5 microns or less.

- 13. The method of claim 9 wherein the temperature is from between about 255F to about 275F.
- 5 14. The method of claim 9 wherein the temperature is from between about 265F to about 268F.
 - 15. The method of claim 9 wherein the temperature is from between about 300F to about 325F.
- 16. The method of claim 9 wherein the temperature is from between about 325F to about 333F.